

## **REMARKS**

In the Office Action dated February 14, 2006, claims 1-16 were objected to because the Examiner stated each of independent claims 1 and 9 should include a statement that steps (a), (b) and (c) in claim 1, and the first, second and third steps in claim 9 are repeated while varying the time interval. Independent claims 1 and 9 have been editorially amended as suggested by the Examiner, and this objection is therefore respectfully submitted to be overcome.

Claims 3-5 and 11-13 were rejected under §112, second paragraph as being indefinite because of the reference in those claims to a second printhead and a second image carrier. The use of those terms in claims 3 and 11 was intended as a form of "reference," but each of those claims has been amended to delete the reference to the second printhead and the second image carrier, and the "reference" has been phrased in terms of the originally-claimed printhead and image carrier.

Claims 3-5 and 11-13 are therefore submitted to be in full compliance with all provisions of §112, second paragraph.

Claims 1-7 and 9-15 were rejected under 35 U.S.C. §102(b) as being anticipated Yamasawa. In response, independent claim 1 has been amended to bring the subject matter of claim 2 therein, and independent claim 9 has been amended to bring the subject matter of claim 10 therein. Therefore, the only relevant rejection that needs to be addressed is the rejection of original claims 2 and 10. The rejection of original claims 2 and 10 is respectfully traversed for the following reasons.

Original claims 2 and 10, now respectively embodied in independent claims 1 and 9, stated that the function that is used to vary the waiting time interval is a

random function. Original claims 2 and 10 were among the claims rejected as being anticipated by Yamasawa, because the Examiner stated the Yamasawa reference varies a waiting time between the end of a printing step and the beginning of another printing step based on measurement of the temperature of the printhead during printing. The Examiner stated this constitutes varying the waiting time interval according to a prescribed function, and the Examiner further stated that since the temperature is a randomly detected value, and since the waiting time is further increased if it is insufficient to provide a reduction in the temperature, the waiting time may be said to be varied according to a random function.

Applicant respectfully disagrees with this conclusion by the Examiner for several reasons. First, although the temperature of the printhead may fluctuate, it does not do so randomly, but does so according to a relatively smooth curve, and does not “jump” between widely different temperature values. Moreover, even though the temperature curve may not be precisely predictable, it is generally predictable. By contrast, a random function provides an output, with regard to a particular input, that is not predictable. A generally-accepted description of the term “random function” is provided herewith on the attached page 1649 of the McGraw-Hill Dictionary of Scientific and Technical Terms, Fifth Edition. The function (if that is what it is) in the Yamasawa reference that varies the waiting time using detected printhead temperature as an input value clearly does not fall within this generally-accepted definition of a “random function.”

Moreover, even if the Examiner maintains the position that the temperature is “random,” this merely means that a value that is (according to the Examiner) random is supplied to the algorithm in the Yamasawa system as an *input*, but the *function*

executed by the algorithm is not itself random. The same algorithm is always applied to the temperature value supplied thereto as an input. Even if the input to such an algorithm can be characterized as "random," this does not convert the function itself into a "random function." There is no random component or random factor in the function (algorithm) itself that is employed in Yamasawa reference. There is a clearly defined (non-random) relation between the (varying or fluctuating) temperature and the waiting time, as clearly stated in the Yamasawa reference at column 6, beginning at line 26.

Moreover, as the Examiner has noted, if the printhead temperature in the Yamasawa reference exceeds a certain threshold, the use of the waiting time is initiated, or the waiting time is re-calculated. This means that the temperature must be measured either continuously or at regular intervals, since it is used as the trigger for the calculation and re-calculation of the waiting time. Therefore, it is not even possible within the Yamasawa reference to measure the temperature at random time intervals, since this would destroy the intended operation of the Yamasawa system.

The Yamasawa reference, therefore, did not disclose the subject matter of original claims 2 and 10, and therefore did not anticipate either of those original claims, and thus the Yamasawa reference does not anticipate either of amended independent claims 1 and 9, that now embody the subject matter of claims 2 and 10 therein, respectively.

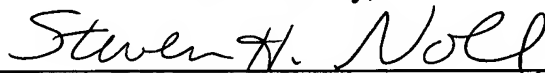
Moreover, although a rejection of the claims under 35 U.S.C. §103(a) based on Yamasawa was not made, it should be clear from the above discussion that the Yamasawa reference not only provides no suggestion whatsoever regarding the use of a random function to vary the aforementioned waiting time, but also the use of

such a random function in the Yamasawa algorithm would at minimum be counter intuitive, and most likely would preclude the system disclosed in the Yamasawa reference from operating as intended. Therefore, it would not have been obvious to a person of ordinary skill in the field of designing printing systems to modify the system disclosed in the Yamasawa reference so as to employ a random function for varying the waiting time.

Applicant notes with appreciation that claims 8 and 16 were stated to be allowable if rewritten in independent form, however, in view of Applicant's belief that independent claims 1 and 9 are not anticipated by the Yamasawa reference, those claims have been retained in dependent form at this time.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,

 (Reg. 28,982)

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# **McGraw-Hill Dictionary of Scientific and Technical Terms**

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On the cover: Photomicrograph of crystals of vitamin B<sub>1</sub>.  
(Dennis Kunkel, University of Hawaii)

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In addition, material has been drawn from the following references: R. E. Huschke, *Glossary of Meteorology*, American Meteorological Society, 1959; *U.S. Air Force Glossary of Standardized Terms*, AF Manual 11-1, vol. 1, 1972; *Communications-Electronics Terminology*, AF Manual 11-1, vol. 3, 1970; W. H. Allen, ed., *Dictionary of Technical Terms for Aerospace Use*, 1st ed., National Aeronautics and Space Administration, 1965; J. M. Gilliland, *Solar-Terrestrial Physics: A Glossary of Terms and Abbreviations*, Royal Aircraft Establishment Technical Report 67158, 1967; *Glossary of Air Traffic Control Terms*, Federal Aviation Agency; *A Glossary of Range Terminology*, White Sands Missile Range, New Mexico, National Bureau of Standards, AD 467-424; *A DOD Glossary of Mapping, Charting and Geodetic Terms*, 1st ed., Department of Defense, 1967; P. W. Thrush, comp. and ed., *A Dictionary of Mining, Mineral, and Related Terms*, Bureau of Mines, 1968; *Nuclear Terms: A Glossary*, 2d ed., Atomic Energy Commission; F. Casey, ed., *Compilation of Terms in Information Sciences Technology*, Federal Council for Science and Technology, 1970; *Glossary of Stinfo Terminology*, Office of Aerospace Research, U.S. Air Force, 1963; *Naval Dictionary of Electronic, Technical, and Imperative Terms*, Bureau of Naval Personnel, 1962; *ADP Glossary*, Department of the Navy, NAVSO P-3097.

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